

ATENT COOPERATION TREAT

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 6873/VJ	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 98/20513	International filing date (day/month/year) 01/10/1998	(Earliest) Priority Date (day/month/year) 07/10/1997
Applicant THE PROCTER & GAMBLE COMPANY et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☐ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is:

Figure No. _____ ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/20513

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C11D3/22 C11D3/37 C11D3/30 C11D17/04 A47L13/17

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C11D A47L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 747 880 A (BERRIDO COLIN ET AL) 31 May 1988 see column 6, line 22 - line 30 see column 4, line 58 - column 5, line 2 see claim 2; examples 1,2 ---	1-4,6,9
X	GB 1 357 323 A (UNILEVER LTD) 19 June 1974 see page 1, column 2, line 20 - line 26 see page 1, column 2, line 31 - line 35 see page 1, column 2, line 63 - line 67 see page 1, column 2, line 91 - page 2, column 1, line 14 see claims 1,4-6; examples 1,4-6 --- -/--	1,6

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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Date of the actual completion of the international search

29 January 1999

Date of mailing of the international search report

08/02/1999

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 174 689 A (UNILEVER NV ;UNILEVER PLC (GB)) 19 March 1986 see column 1, line 32 - line 41 see claims 1,5 see column 2, line 5 - line 18 ---	1
E	WO 98 42819 A (POLICICCHIO NICOLA JOHN ;MASTERS RONALD ANTHONY (US); PROCTER & GA) 1 October 1998 see claims ---	1-10
A	EP 0 357 496 A (COLGATE PALMOLIVE CO) 7 March 1990 see page 3, line 31 - line 41 ---	8,10
A	EP 0 215 451 A (HENKEL KGAA) 25 March 1987 see column 2, line 48 - line 55 see column 6, line 45 - column 7, line 3; tables -----	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/20513

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4747880	A	31-05-1988	NONE	
GB 1357323	A	19-06-1974	NONE	
EP 0174689	A	19-03-1986	AU 563433 B	09-07-1987
			AU 4699385 A	13-03-1986
			CA 1236367 A	10-05-1988
			DE 3587751 D	24-03-1994
			DE 3587751 T	01-06-1994
			PT 81088 B	10-07-1987
			US 4787998 A	29-11-1988
WO 9842819	A	01-10-1998	AU 6512698 A	20-10-1998
EP 0357496	A	07-03-1990	US 4931201 A	05-06-1990
			AT 105691 T	15-06-1994
			AU 627486 B	27-08-1992
			AU 4012589 A	08-03-1990
			CA 1327681 A	15-03-1994
			DE 68915371 D	23-06-1994
			DK 432589 A	03-03-1990
			FI 894141 A,B	03-03-1990
			GR 89100543 A,B	31-10-1990
			JP 2161925 A	21-06-1990
			PT 91594 A,B	30-03-1990
EP 0215451	A	25-03-1987	DE 3533531 A	02-04-1987
			JP 2109889 C	21-11-1996
			JP 8023038 B	06-03-1996
			JP 62072800 A	03-04-1987
			US 4725319 A	16-02-1988



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C11D 3/22, 3/37, 3/30, 17/04, A47L 13/17		A1	(11) International Publication Number: WO 99/18182
			(43) International Publication Date: 15 April 1999 (15.04.99)
(21) International Application Number: PCT/US98/20513 (22) International Filing Date: 1 October 1998 (01.10.98) (30) Priority Data: 60/061,296 7 October 1997 (07.10.97) US 60/086,447 22 May 1998 (22.05.98) US (71) Applicant (for all designated States except US): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): POLICICCHIO, Nicola, John [CA/US]; 4976 Laurelwood Court, Mason, OH 45040 (US). SHERRY, Alan, Edward [US/US]; Apartment #7, 235 Loraine Avenue, Cincinnati, OH 45217 (US). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).		(81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: DETERGENT COMPOSITION FOR HARD SURFACES COMPRISING HYDROPHILIC SHEAR-THINNING POLYMER AT VERY LOW LEVEL			
(57) Abstract			
<p>A detergent composition and/or solution for floors comprising a hydrophilic shear-thinning polymer at very low level for improved cleaning end result. The solution can be used with conventional implements known in the art, including sponges, cloths and/or sponge, string, and/or strip mops and floor cloths such as those sold at retail and speciality stores. In a most preferred embodiment, the solution is used with a cleaning pad comprising an effective amount of a superabsorbent material, said pad preferably being part of cleaning implement comprising a handle and said cleaning pad preferably being removable. The detergent composition preferably contains a limited amount of a detergent surfactant, preferably linear in structure and relatively hydrophilic, the level of solvent in the formula preferably being kept below about 5.0 %, and the pH preferably being maintained above about 9. The process of using the detergent solution with cleaning implements, including those of the most preferred embodiment, cleaning pad, and the provision of a kit containing both detergent composition and cleaning pad are disclosed.</p>			

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